

Castlemaine Naturalist

December 2021

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Monthly newsletter of the
Castlemaine Field Naturalists Club Inc.



After the Daylesford bushfire photo by Noel Young

Managing Fire Tomorrow

Our speaker for the November meeting was **Phil Ingamells** from VNPA who spoke about the background, issues and complexity of managing wildfire now and into the future. Phil has extensive experience of fire management and the issues around it including providing supporting evidence to the 2010 Bushfires Royal Commission.

The talk began with a short journey back in time to when Australia was part of Gondwana and dinosaurs were just starting to roam the earth. The land was covered with cool temperate rainforest including species such as the southern beeches (*Nothofagus sp*) and Sassafrass (*Atherosperma moschatum*) along with ferns and mosses that today in Victoria are mainly restricted to damp gullies. As the continent moved away from Antarctica it dried and the rainforests were gradually replaced with Eucalypts and other more fire tolerant species until only the small pockets we see today remained. These remaining small pockets of rainforest are now under threat. Not all native plants, even in fire prone areas are fire tolerant.

Our communities are always looking for a simple solution to what is a very complex problem, which is often voiced as the need for more fuel reduction burns over ever greater areas. Different ecosystems have different tolerances for fire; for some more frequent fire may wipe out those forests and less frequent fire may see them evolve into a less fire tolerant state. For example, the Box-ironbark forests of our region require a fire at least every 150 years to maintain the forest, but not more frequently than every 30 yrs for a high severity fire or the forest will not regenerate.

In contrast, the Mountain Ash Forests require a fire every 300 years or so but not more frequently than every 80 years. Some of these forests are now threatened due to too frequent fire with work being undertaken to reseed them in some areas. Alpine areas and rainforests should not be burnt, but if burnt have recovery times of hundreds of years.

At the other end of the scale are lowland grasslands that can tolerate and might need fire at intervals of 1-3 years.

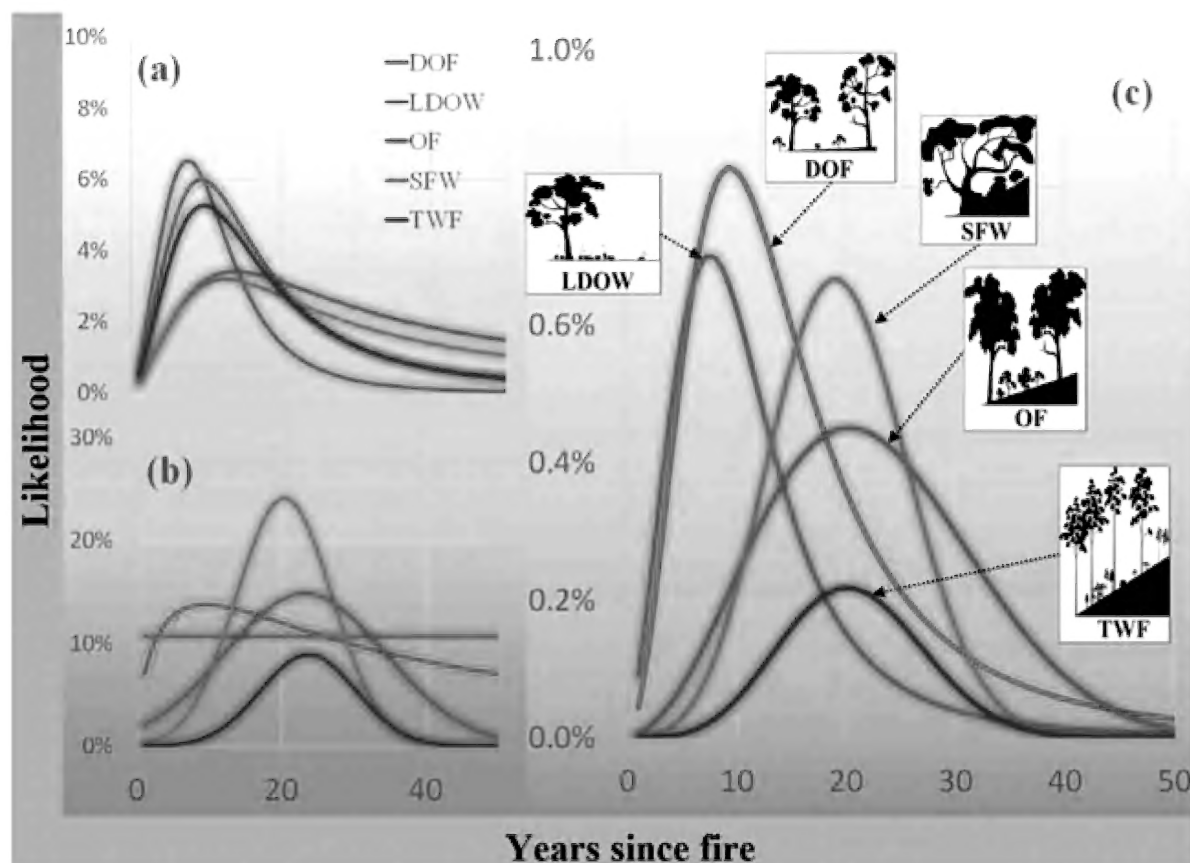
There is a trend to have more fire management carried out by indigenous land managers which is summarized by the term 'Right Fire'. That is the Right Fire in

the Right Place at the Right Time for the Right Reasons. Beth Gott from Monash University has done a lot of work on indigenous farming for tubers and fire. She has stated that the first inhabitants never burnt without an objective for the burn.

On page 11 of the 1939 Stretton Royal Commission into the 1939 Black Saturday fires, there is recognition that agricultural burning practices actually increased the flammability of the forests.

One of the big problems with current fire management in our forests is the lack of monitoring. There will be a fuel load assessment before a fuel reduction burn and maybe immediately afterwards but no follow-up in the years following. The Victorian Auditor General's Office has commented that this lack of monitoring means that DELWP does not understand the effect of fuel reduction burns.

Several recent independent studies have shown that in many if not all forest types there is a peak in fuel load, flame height and propensity for wildfire that is reached in the first few decades following a fire, after which there is a gradual decline due to the actions of decomposers and the senescence of understory vegetation. The graph below shows flammability trends for different forest types. Our local forests most closely correspond to the LDOW and DOF categories.



Flammability trends for each formation, where the x-axis gives years since the last fire, and the y-axis gives likelihood for (a) fire burning a point, (b) crown fire occurring if that point is burning and (c) crown fire occurring at any point. Labels refer to dry, open forest (DOF), low, dry open woodland (LDOW), open forest (OF), subalpine forest and woodland (SFW), tall, wet forest (TWF).

Zylstra, P.J., Flammability dynamics in the Australian Alps, *Austral Ecology* (2018) 43, 578–591.

Phil also talked about the 'strategic fuel break' program that is being rolled out across the state. In the east where forests are taller, there is wide clearing (40m including a road) with most trees being removed and the vegetation taken back to mineral earth. With the lower forests in our area the fuel breaks will not be as wide and the nearby forest will be thinned with an emphasis on hazardous trees and the understory vegetation mulched to approx. 10cm. The benefits of such breaks would likely only be seen during milder fire conditions.

When discussing fire management actions with the Department it is important that we ask what the result of that action will be and whether that result will actually justify the work being undertaken.

At the end of his talk Phil emphasized that there is no single answer but that some of the recommendations from earlier royal commissions such as those for increased first strike capacity across the state, compulsory evacuation and properly constructed safe bushfire shelters for homes in danger areas should be implemented.

- Euan Moore



Burnt and unburnt forest. These photos were taken about 100m apart in a state forest near Linton, 2015. Left: Forest burnt 3 years prior to the photo showing blackened trunks and vigorous understory regrowth. Right: Forest last burnt in 1934 showing fallen litter and grassy understory but limited shrub layer. This is perhaps closer to the pre-European state of these forests and matches some of the descriptions by early explorers.

Photos: Euan Moore

Excursion to Kalimna Park on 20th November 2021

Peter Turner

Following Phil Ingamell's informative talk on Fire Management at our November meeting we had arranged for local ecologist Karl Just to lead an excursion in Kalimna Park to observe the impacts of the 2020 planned burn in the south west section of the park, and learn about the complexities of bushfire risk assessments. The excursion was scheduled a week later than usual to fit Karl's commitments, but he had to withdraw at short notice. Euan Moore kindly agreed to take over and on Saturday morning used maps and notes provided by Karl to prepare for the afternoon excursion.

Seventeen people – CFNC members and Friends of Kalimna – met at the Doveton St entry. Euan led us a short way up a narrow track to an area where shrubs like

Coffee Bush *Cassinia sifton* had been burnt. Copies of Karl Just's pre- and post-burn maps were handed out, with estimated fire risk illustrated by coloured 50m x 50m squares. Euan explained where the planned burn had reduced the risk of some areas, but the risk over most of the area of the 2020 planned burn had not been significantly reduced. Questions and discussions covered aspects such as the different minimum times that can be sustained by different types of species – 1 year for some grasslands, 80 years or longer for forests.

We moved back to the track running behind the houses along Fletcher St, where a Strategic Fire Break is planned - mulching to about 10 cm of all shrubs and removal of some small trees.



We then drove to the Kalimna Tourist Rd, parking at the start of the Kalimna Circuit Track. Here Euan described the procedure documented by DELWP for estimating fire risk. Of particular concern in much of the Park are the many Red Stringybark *Eucalyptus macrorhyncha* - as little as 10% stringybark cover results in Very High risk. Other vegetation types and layers also contribute. The final part of the excursion was a comparison of the high shrub density to the north of the Circuit Track, which was burnt in 2015, with the opposite side of the track where the 2020 burn had failed to spread. Euan handed out a diagram demonstrating fire risk in Mountain Ash forests after a severe bushfire, with risk peaking after about 10 years as the new trees grow, then gradually falling over about 30 years as smaller and weaker trees and undergrowth die off. Similar trends have been seen in other types of forest, providing evidence for allowing natural recovery to occur, provided fire can be kept out over extended periods.

Thanks on behalf of all present to Euan for taking over at short notice and for helping us understand the complexities of managing fire risks to Castlemaine while protecting the precious environment of Kalimna Park.

Birds of Sutton Grange November 2021

Nigel Harland

Superb Fairy-wren
Australian Magpie
Yellow-tufted Honeyeater
Crimson Rosella
Common Bronzewing
Striated Pardalote
Grey Currawong
Fantailed Cuckoo
Rufous Whistler

Red-browed Finch
Australian Raven
Sulphur-crested Cockatoo
New Holland Honeyeater
Red Wattlebird
Grey Shrike-thrush
White Faced Heron
Eastern Rosella

White-browed Scrubwren
Laughing Kookaburra
Long-billed Corella
Welcome Swallow
Galah
Eurasian Blackbird
Black-faced Cuckoo-shrike
Boobook Owl

Boobook heard on nightly visit to the loo!

Great Southern Bioblitz 2021 on iNaturalist

Euan Moore

At the end of October, 25 observers for the CFNC project were among 5806 observers from across the southern hemisphere who took part in the [Great Southern Bioblitz 2021](#). Supporting the observers were over 3000 identifiers who confirmed the identity of the flora and fauna that were recorded.

The Great Southern Bioblitz (GSB) provides a snapshot of the natural history during the southern hemisphere spring. Across the hemisphere there were nearly 184 000 observations and over 21 000 species recorded although there are many observations where the identity is still to be confirmed.

The GSB is an important engagement tool, encouraging people to get out in nature, look at what is around them, both big and small, and to record what they see. The identification of observations by other people is both fun and educational.

There is a friendly competitive element where the regions or groups and individuals within those groups competed on number of observations and identified species. Observations must be made over the nominated period from Friday to Monday but observers have another two weeks to add their observations from that time and have them identified.

So how did our [Castlemaine](#) group do?

Very well as it turns out! With 1827 observations of 572 species, on the global scale we came in at number 27 out of 277 groups for number of observations and 28th for number of species. You can view the league table at the [GSB 2021](#) or regionally at the [Oceania](#) level.

What we saw.

Our 572 species were 324 plants, 117 insects, 63 birds, 22 fungi, 21 spiders, 11 reptiles, 3 mammals, 2 amphibians, 1 fish and 5 other animals. Our most observed species were Milkmaids, *Burchardia umbellata*, 24 observations, Sticky Everlasting, *Xerochrysum viscosum*, 20 obs., Pink Bells, *Tetradlea ciliata*, Daphne heath, *Brachyloma daphnoides*, and Slender Rice Flower, *Pimelea linifolia*, all with 19 observations. Our most frequently recorded insect was the Painted Cup Moth, *Doratifera oxleyi*, with 13 observations while the Superb Fairy-wren, *Malurus cyaneus*, was leader amongst the birds.

Introduced species made up 216 of our observations with 96 introduced species being recorded. Grasses made up the single biggest group of introduced species that were recorded. Many of the other introduced species are common weeds of roadsides, gardens and natural areas.

We also recorded a number of threatened species during the bioblitz. The iNaturalist website allows reporting of threatened species based on the IUCN Red List. This threw up a few surprises. Most of the Eucalypts that we found are listed as Near Threatened or Vulnerable. This included species such as Red Box and

Yellow Box (Vulnerable), River Red Gum and Manna Gum (Near Threatened). Two introduced species that we recorded also showed up on the Red List. *Pinus radiata* is listed as Endangered due to a declining population of mature individuals within its very restricted natural range and the European Rabbit is also Endangered due to a decreasing population in its natural range in Spain.

Not on the Red List but listed as Endangered under the State FFG list is the Fryerstown Grevillea. *Grevillea obtecta*, where we had four observations. There may be other endangered species in our list as there are still a third of our observations to have their identity confirmed.

All of this could not have happened without our observers and identifiers. I will use their iNaturalist 'names' here with observations in brackets. Our top 5 observers were habitatearth (321), jrolland (277), calamanthus (262), cmnoel (212) and b_sydes (172). Our top 5 identifiers were oneanttofew (480), calamanthus (331), michael1922 (178), lotteryd (158) and iancastle (95). There were, however, many others who made their contribution to the success of this event.

The organisers of GSB 21 are still working on the statistics and report for the event so there may be updates in the coming months.

In the meantime, start thinking about GSB 22 and how you can join the fun. Log on to iNaturalist and practice your identification skills or get out there and make observations. You will not know what is out there until you look.

Finally, some comments from two of our participants.

"Thanks for all the organising, encouragement :) We're learning lots and having fun along the way."

"I'm very pleased to have got into iNaturalist – I think I've learned more about plant ID over one weekend than the last 50 years! Finding a whip snake was pretty exciting too."



Examples of some of the sightings recorded during the bioblitz.

From left: Musky Caps (*Caladenia moschata*) Photo: lisa_au; Australia Magpie Moth (*Nyctemera amicus*) caterpillar. Photo: Habitatearth; Right: Buff-rumped Thornbill at nest. Photo: habitatearth.

Fryers Ridge Wildflower Tour – November 13th 2021

Peter Turner

This tour was initially scheduled to follow Rod Orr's talk on Native Plants of the Fryers Ridge Area at our August meeting but had to be cancelled due to Covid-19 restrictions. With the November excursion delayed until 20th, we were delighted that Rod Orr agreed to lead this additional excursion. Ten enthusiasts set out, Rod leading us down the Fryerstown Rd to the Crocodile Dam Rd, where we stopped to view Wire-leaf Mistletoe *Amyema preissii* and Grey Mistletoe *Amyema quandang* on a large old Wattle at the edge of the road.

We stopped at several places along the Old Coach Rd - highlights included Hoary Sunray *Leucochrysum albicans*, Bulbine Lily *Bulbine bulbosa*, Stiff Geebung *Persoonia rigida* with green berry-like fruit and many Dwarf Bush-pea *Pultenaea humilis* which is a highlight throughout much of the area at this time.

We reached the junction with Fryers Ridge Rd, where the Heath Milkwort *Comesperma ericinum* stood out amongst a wealth of interesting plants. Then we travelled on south along Fryers Ridge Rd to the junction with Sugarbag Track, for another "garden" of wildflowers, including two Sun Orchids in bud and Common Beard-heath *Leucopogon virgatus*. Heading back we stopped to admire several bright Common Wedge-pea *Gompholobium huegelii*, before ending a splendid afternoon with tea and cake near Railway Dam.

Our sincere thanks to Rod for his selection of sites along the route and expert advice.



Needle Grass News

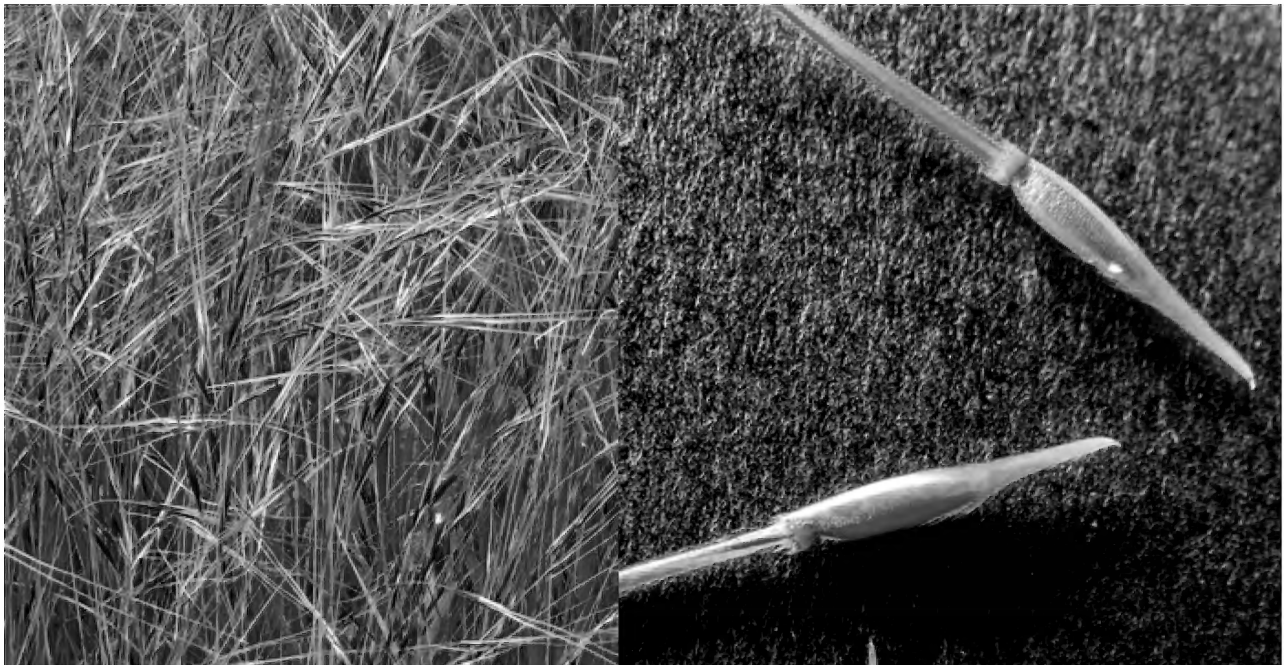
Margaret Panter, Needle Grass Project co-ordinator.

Needle grass heads appeared later than usual this season following cool spring weather. I didn't see flowers on them until 23 November.

This season Council Parks & Gardens staff are taking part in workshops to help them identify needle grasses, so that they can hopefully largely take over from volunteers in the future. Five Parks and Gardens workers and Council's new full-time Environment Officer were at the first one on 11 November. They dug out all of the needle grass that I found and they found some more themselves and asked useful questions. I've had some positive feedback about the workshop. Another workshop of a different team of Parks & Gardens workers is planned for early December. After that there'll be some more volunteer working bees at the Botanical Gardens. The working bees usually continue till about February or March. Our thorough digging out at the end of the season last year seems to have resulted in fewer plants at the start of this next season, which is pleasing.

It would be useful for people who are keen for Council to take over needle grass removal to do budget submissions to Council asking for more staff so that the existing staff aren't expected to squeeze a lot of extra work into their already busy schedules. Those of us who have made budget submissions in the last two years requesting more resources for weed removal and an increase in Environment Officer hours have been successful!

If you'd like to help at a working bee and/or donate some empty potting mix bags (to put the needle grass in to take to the tip), please ring me on 5470 5072 between 7am and 7pm.



Chilean Needle grass left, and Chilean Needle grass seeds right.

Photos by Euan Moore

'Wildlife' Queries December (1943)

George Broadway

There were very few replies to readers this month; perhaps because the Index for 1943 took up several pages. Here are the few answers to queries.

Botanical

Frankston: The common name of your orchid is "Brown Beaks" or "Flower of Sadness" and "Undertakers". Its botanical name is *Lyperanthus suaveolens*. Suaveolens means sweet-scented but the scent is only apparent on muggy days. "Flower of Sadness" is a literal translation of the generic name *Lyperanthus*.

Frankston: Your two orchids which had the same shape were "Brown Beaks" at different stages of development. The other was the "Snake Orchid" *Diuris pedunculata*.

Seaford: Common Fringed Spider Orchid, *Caladenia dilatata*.

Donvale: Lovely specimen of the Dotted Sun Orchid, *Thelymitra ixioides*. Blue with darker blue spots inside.

Wantirna: Coral Fungus, *Clavaria*. Usually found in shady situations on moist gullies.

Carapooee: The blue tubular flower that the stock refuse to eat is an *Isotome*. There is a poisonous principle in the plant.

Wallan: The orchid is the Common Bird Orchid, *Chiloglottis gunnii*.

General

The crawlies were not cutworms but millipedes. Being vegetarian they can do damage in the garden if present in sufficient numbers.

Roadside Clean-up

Geoff Harris

Roadside Cleanup was held on Monday 15 November after a six month Covid-enforced break. Despite forecast rain we only received a light shower and, with a good turn-up, were able to get the job done by about 10:30. There was less rubbish than usual to pick up & some nice flowers to look at.

There were patches of Bluebells (*Wahlenbergia* sp.), Magenta Stork's-bill (*Pelargonium rodneyanum*), Lemon Beauty-heads (*Calocephalus citreus*), Black-anther Flax-lily (*Dianella admixta*), Common Rice-flower (*Pimelea humilis*) and one very healthy patch of Blue Devil (*Eryngium ovinum*) but it was not in flower. We found two hen-sized white eggs on the ground that had been eaten by a predator — the eggs shells were quite hard and were possibly Wood Duck eggs.

As we were packing up a small caterpillar appeared on Geoff's 'hi vis' jacket. It was a caterpillar of the Gum Leaf Skeletonizer Moth (*Uraba lugens*). This little caterpillar is sometimes called the "mad hatterpillar", after the Mad Hatter in Alice's Adventures in Wonderland by Lewis Carroll, because it retains the moulted exoskeletons of its larger and larger heads stacked on top of each other as it grows and moults. It feeds on eucalyptus leaves, eating back to the vein structure of the leaves.

Thanks to Marli, Jackie, Nigel, Peter, Sue, Geraldine, Jenny & Euan.

Observations

Geraldine Harris

While on the Monk I photographed a small brown moth which I think is a Splendid Ochre Moth (*Trapezites symmopus*). During the daytime, the caterpillar hides in a leaf shelter near the base of its food plant, and it feeds nocturnally on various species of Mat-Rush. [Photo right]



20/11/21 Weeding Rewards

While weeding out Patterson's Curse plants at Barkers Creek we were pleased to find a number of healthy patches of Clover Glycine (*Glycine latrobeana*) in our paddock - a new sighting for us.



There were also some patches of Woolly New Holland Daisy (*Vittadinia gracilis*) with dense cotton hairs on, particularly, the young stems and on the marginal ribs of the seed pods.

22/11/21 Fryers Ridge

There was a beautiful display of Dwarf Bush-pea (*Pultenaea humilis*) on the corner of Fryers Ridge Road and Old Tower Road.

November 2021.

20-30 Yellow-tailed Black-Cockatoos regularly feeding on grass seeds at our place at Barkers Creek.

What are the frothy white spots seen on some native plants?

They are the work of Spittlebugs (family Aphrophoridae) - small to medium sized brownish sap-feeding insects. The name "spittlebugs" comes from the ability of each nymph to produce a mass of bubbly spittle in which it lives and feeds.

Peter Turner

Rosemary spotted this in CBG Nature Reserve. Blue Grass-lily *Caesia calliantha*.

Uncommon. Only previously recorded in Kalimna in Castlemaine Plant List.



Phil and Judy Hopley

Some rare and uncommon plants in our area



Broughton Pea
Swainsonia procumbens
Mooloort water meadow



Golden Penants – native
Glischrocaryon behrii



Scented Bush-pea
Pultenaea graveolens

There is a sizeable patch of the locally rare White Everlasting daisies (*Chrysocephalum baxteri*), flowering along the Billie Oh Track, off Old Tower Track.



Above and right: White
Everlasting Daisies.
Far right: Podolepis sp.



I think the yellow daisies are Showy Podolepis, either *P. jaceoides* or *P. decipiens*, only one patch sighted off Old Tower Track, Fryers Ridge. I am no expert on daisies but the leaves on these seem to match this plant. I'm sure others more knowledgeable will know!

In the November CFNC newsletter the photo of the spider orchid I submitted was incorrectly labelled by me as a Brown-clubbed Spider-orchid. It is in fact a Mantis orchid (*Caladenia tentaculata*) - Judy.

Disclaimer: The opinions expressed in this newsletter are those of the contributors and not necessarily those of the club

Castlemaine Field Naturalists Club

COMING EVENTS

Fri Dec 10th Meeting: Members' night, 7.30pm

A chance for you to share your interesting nature sightings and stories from the year. This meeting will be held by zoom, so you can show photos, a video or a short power-point presentation, recite a poem or sing a song!

Please email your photos to Euan Moore at calamanthus5@bigpond.com by noon on the day of the meeting, or if you have a longer presentation you may wish to share your own screen. If you have any queries about how to show your presentation please contact Euan.

If you have registered for our previous webinar meetings you will be sent the link for registering with Zoom. If you have not joined before and wish to attend, please email Peter Turner at munrods1@inet.net.au

Tues Dec 14th Picnic in the Castlemaine Botanic Gardens, 5pm onwards

Meet on the lawn at the northern end of the Botanic Gardens. BYO-everything (including chairs) Park in Downes Rd near the corner with Froomes Rd and enter by the NE gate, or park in the northern Downes Rd carpark. After our picnic, Phil Hopley will tell us about the revised tree register for the gardens and take us on a short walk to point out some of the more 'significant' trees.

Please bring a valid paper or electronic COVID vaccination certificate or medical exemption to show us at check in.

Program for 2022

January – no meeting or excursion, but keep searching for Eltham Copper Butterflies and other interesting flora and fauna!

Friday February 11th - our first monthly meeting for 2022. We are hoping to meet in the Uniting Church Hall. This will be followed by an excursion on **Saturday February 12th**.

Details will be emailed to members and posted on our website.

Club website (Web master: Ron Wescott) - <http://castlemainefnc.wordpress.com/>

Castlemaine Naturalist - email newsletter material to: newsletter.cfnc@gmail.com

*Deadline for the February 2022 edition is January 28.

Subscriptions for 2021

Ordinary membership: Single \$35, Family \$50

Pensioner or student: Single \$25, Family \$30

Subscription includes postage of the monthly newsletter, Castlemaine Naturalist

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